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Cost Estimates

Helen Mercury Mine EE/CA OPINION OF PROBABLE COST						
Alternative 2: Limited Action						
Item No.	Line Item	Est. Qty.	Unit*	Unit Price	Extended Price	Description
CONSTRUCTION COST ESTIMATE						
MOBILIZATION & GENERAL SITE PREPARATION						
1	Mobilization, Bonding, Insurance	5	%	-	14,600.00	Typical percentage of overall construction
2	Construction BMPs (E&S Controls)	2	%	-	2,100.00	Typical percentage of overall construction
3	Minor Road Improvements	5.00	DAY	3,025.75	15,100.00	HCCD Crews B10L
4	Clear & Grub diversion channel areas	0.50	AC	1,353.85	700.00	HCCD 02230-100-0300
5	Surveying	8	DAY	1,180.56	9,444.44	HCCD Crews A-6, 3 field days pre/post construction, 2 days office
6	Cleanup & Demobilization	1	LS	5,000.00	5,000.00	Judgment
					46,900	
Excavation and Movement of Material						
7	Pull back of material	7,600	CY	4.48	34,000.00	Judgement, 3 CY track mounted backhoe
8	Regrade material pulled back	7,600	CY	4.48	34,000.00	Judgement, spread from stockpile, 2.5 CY FE loader
9	Final grading of placed material	2,533	SY	1.10	2,800.00	Judgement
					70,800	
Armored Embankments						
10	Excavation of armored embankments	100	CY	6.13	600.00	BCCD 02310-100-1150 Hand grading; modified from per SY
11	Filter fabric	24	SY	1.12	0.00	Judgement, Dewitt filter fabric plus installation
12	Clear & Grub access to lower mine area	1	AC	1,353.85	700.00	HCCD 02230-100-0300
13	Cut access road to lower mine area	550	CY	8.91	4,900.00	HCCD 02315-432-5420
14	Riprap	24	CY	55.53	1,300.00	ERCDCD 17 03 0418; includes materials, delivery, and dumping
15	Place riprap	24	CY	34.82	800.00	BCCD 02370-450-0100; machine placed
					8,300.00	
Diversion Channel Construction						
16	Excavation of diversion channel	1,100	CY	4.48	4,900.00	Judgement, 3 CY track mounted backhoe
17	Filter fabric	2,000	SY	1.12	2,200.00	Judgement, Dewitt filter fabric plus installation
18	Granular bedding (materials)	83	CY	53.83	4,500.00	BCCD 02315-640-0050; bedding and placement
19	Haul bedding material to site	83	CY	36.89	3,100.00	BCCD 02315-490-0560; 12 CY dump;20 mile RT
20	Compact bedding material in channels	83	CY	5.47	500.00	BCCD 02315-640-0500; compacting bedding in trench
21	Riprap	250	CY	55.53	13,900.00	ERCDCD 17 03 0418; includes materials, delivery, and dumping
22	Place riprap	250	CY	34.82	8,700.00	BCCD 02370-450-0100; machine placed
					37,800	
Perimeter Fencing						
23	Locking Gates	2	EA	1,600.91	3,200.00	BCCD 02800-130-5020; 20' opening, 6' high, including installation
24	Perimeter Fencing	2,500	LF	7.81	19,500.00	HCCD 01560-250-0200
25	Access Restriction Signs	25	EA	26.00	700.00	Judgement and experience with similar projects
					23,400	
Miscellaneous						
26	Providing Dust Control	264	day	18.00	4,750.00	Judgement
27	Erosion control	2,533	SY	10.38	26,300.00	ERCDCD 17 03 9904 mulch hay, 50 lb; modified per SY (1 bale/SY)
28	Re-seeding	4,840	SY	0.64	3,110.00	BCCD 02920-310-0300
29	Stormwater Pollution Prevention Control	1	LS	5,000.00	5,000.00	Judgement and experience with similar projects
30	Providing Decon Area	30	SY	54.55	1,600.00	HCCD 02370-450-0400, stone truck washes
53	Groundwater monitoring	3	EA	3,000.00	9,000.00	Judgement, monitoring well installation and sampling
					49,760	
SUBTOTAL FOR CONSTRUCTION					237,000	
31	Additional line items allowance	10	%	237,000.00	23,700.00	
SUBTOTAL FOR CONSTRUCTION WITHOUT CONTINGENCY					260,700	
32	Contingency	15	%	260,700.00	39,100.00	
SUBTOTAL FOR CONSTRUCTION WITH CONTINGENCY					299,800	
DESIGN COST ESTIMATE						
ENGINEERING & DESIGN						
33	Certificate of Designation Application Fees	1	LS	5,000.00	5,000.00	Judgment
34	Engineering design & operation report	1	LS	80,000.00	80,000.00	Judgment
35	Construction oversight	1	LS	14,400.00	14,400.00	Judgment, 1 people @ \$80/day, 10 hour/day, 6 day/week, 3 weeks
36	Administration	1	LS	3,000.00	3,000.00	Judgment
					102,400	
OPERATIONAL REQUIREMENTS						
37	Monitoring program plan	1	LS	4,000.00	4,000.00	Judgment
38	Recordkeeping	1	YR	2,000.00	2,000.00	Judgment
					6,000	
FACILITY CLOSURE - ENGINEERING/DESIGN						
39	State & Local notifications	1	LS	3,000.00	3,000.00	Judgment
40	General public notification	1	LS	3,000.00	3,000.00	Judgment
41	Closure plan preparation	1	LS	4,000.00	4,000.00	Judgment
42	Post-closure plan preparation	1	LS	3,000.00	3,000.00	Judgment
					13,000	
SUBTOTAL FOR DESIGN AND OPERATION					121,400.00	
43	Additional line items allowance	10	%	121,400.00	12,100.00	
SUBTOTAL FOR DESIGN WITHOUT CONTINGENCY					133,500.00	
44	Contingency	15	%	133,500.00	20,000.00	
SUBTOTAL FOR DESIGN WITH CONTINGENCY					153,500	
TOTAL FOR DESIGN + CONSTRUCTION (ROUNDED)					453,300	

- ASSUMPTIONS & LIMITATIONS:
- Pricing is for 2010 present value with 7 percent discount rate.
 - Annual costs are set at 30 years for long-term monitoring activities at the Site.
 - Extended prices are rounded to the nearest \$100; however, in cases where the nearest \$100 value is \$0, an extended price of \$100 has been assigned

*UNITS:
AC = acre
CY = cubic yard
EA = each
LF = linear foot
LS = lump sum
SY = square yard
YR = year

HCCD = RSMeans Heavy Construction Cost Data 2006, adjusted for inflation
BCCD = RSMeans Building Construction Cost Data 2005, adjusted for inflation
ERCDCD = RSMeans Environmental Remediation Cost Data 2005, adjusted for inflation
Judgement = Professional judgement or estimation by E & E.

Helen Mine EE/CA OPINION OF PROBABLE COST						
Alternative 3:Onsite Stabilization and Consolidation						
Item No.	Line Item	Est. Qty.	Unit*	Unit Price	Extended Price	Description
CONSTRUCTION COST ESTIMATE						
MOBILIZATION & GENERAL SITE PREPARATION						
1	Mobilization, Bonding, Insurance	5	%	-	20,300.00	Typical percentage of overall construction
2	Construction BMPs (E&S Controls)	2	%	-	8,100.00	Typical percentage of overall construction
3	Minor to Moderate Road Improvements	4.00	DAY	3,025.75	12,100.00	HCCD Crews B10L
3	Clear & Grub staging areas	2.00	AC	1,353.85	2,700.00	HCCD 02230-100-0300, aareas surrounding terrace locations
4	Surveying	10	DAY	1,180.56	11,800.00	HCCD Crews A-6, 4 field days pre/post construction, 4 days intermediate, 2 days office
5	Cleanup & Demobilization	1	LS	8,000.00	8,000.00	Judgment
					63,000	
Excavation and Movement of Material						
6	Excavation of sediment/waste material from southern disturbed area, south valley	488	CY	3.76	1,800.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
7	Haul south valley sediment to consolidation cell	488	CY	3.40	1,700.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
8	Placement of south valley sediment in consolidation cell	488	CY	3.76	1,800.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
9	Excavation of sediment/waste material from southern disturbed area, north valley	658	CY	3.76	2,500.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
10	Haul north valley sediment to consolidation cell	658	CY	3.40	2,200.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
11	Placement of north valley sediment in consolidation cell	658	CY	3.76	2,500.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
12	Excavation of tailings from north tailings pile	5,339	CY	3.76	20,100.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
13	Haul north tailings to consolidation cell	5,339	CY	3.40	18,200.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
14	Placement of north tailings in consolidation cell	5,339	CY	3.76	20,100.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
15	Excavation of storage tank area	223	CY	3.76	800.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
16	Haul storage tank area to consolidation cell	223	CY	3.40	800.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
17	Placement of storage tank area material in consolidation cell	223	CY	3.76	800.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
18	Grade Subgrade	1,600	SY	2.97	4,700.00	HCCD 02310-100-1050, Subgrade for small irregular areas
19	Compact placed material at consolidation cell	6,708	CY	0.45	3,000.00	HCCD 02315-310-5080, 12" lifts, 3 passes
20	Final grading of placed material at consolidation cell	2,600	SY	0.21	500.00	HCCD 02310-100-3300, finish grading slopes, gentle slopes
					81,500	
Capping of Consolidation Cell						
21	Demarcation Layer	1600	SY	2.33	3,700.00	HCCD 2340-300-1550, geotextile, non-woven 120 lb tensile strength
22	Select fill	858	CY	23.37	20,100.00	ERCD 17 03 0424; unclassified fill, delivered, off site, includes remoteness factor
23	Placement of select fill	858	CY	3.76	3,200.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
24	Compaction of select fill	858	CY	0.47	400.00	BCCD 02315-310-5080; 12" lifts, 3 passes
25	Topsoil	434	CY	43.39	18,800.00	ERCD 18 05 0301 Furnish imported topsoil (includes material and hauling to site)
26	Placing topsoil	2,600	SY	3.76	9,800.00	HCCD 02315-520-0170, spread topsoil from stockpile, 2.5 CY FE loader, 300' haul
					52,300.00	
Restoration of Southern Disturbed Area Valleys						
27	Grading of excavated south valley	488	CY	6.13	3,000.00	BCCD 02310-100-1150 Hand grading; modified from per SY
28	Grading of excavated north valley	658	CY	6.13	4,000.00	BCCD 02310-100-1150 Hand grading; modified from per SY
29	Granular bedding (materials)	382	CY	53.83	20,600.00	BCCD 02315-640-0050; bedding and placement
30	Haul bedding material to site	382	CY	36.89	14,100.00	BCCD 02315-490-0560; 12 CY dump;20 mile RT
31	Compact bedding material in channels	382	CY	5.47	2,100.00	BCCD 02315-640-0500; compacting bedding in trench
32	Riprap	764	CY	55.53	42,400.00	ERCD 17 03 0418; includes materials, delivery, and dumping
33	Place riprap	764	CY	34.82	26,600.00	BCCD 02370-450-0100; machine placed
					112,800	
Perimeter Fencing						
34	Perimeter Fencing at consolidation cell	648	LF	30.37	19,700.00	HCCD 2820-130-200, 3 strand barb wire, 2" post, 6' height, 9 ga. Wire, galv. Steel
					19,700	
Site Reclamation of Tailings Pile and Storage Tank Area						
35	Final grading of north tailings pile excavation	485	SY	0.25	100.00	HCCD 2310-100-3310; finishing grading slopes, steep slopes
36	Final grading of Storage Tank Area	669	SY	0.21	100.00	HCCD 02310-100-3300; finishing grading slopes, gentle slopes
37	Revegetation	1	AC	1,803.53	2,039.40	Judgement, includes excavated areas and surface of consolidation cell
					2,239	
Surface Water Controls						
38	Permanent surface water control grading	2	DAY	1,339.86	2,700.00	Means crew B-10T
					2,700	
Miscellaneous						
39	Providing Dust Control	2,573	CY	1.76	4,520.00	HCCD 02315-310-9010, 3000 gal. Water truck, 6 mile haul
40	Erosion control	5,473	SY	10.38	56,810.00	ERCD 17 03 9904 mulch hay, 50 lb; modified per SY (1 bale/SY)
41	Stormwater Pollution Prevention Control	1	LS	20,000.00	20,000.00	Judgement and experience with similar projects
42	Providing Decon Area	30	SY	54.55	1,600.00	HCCD 02370-450-0400, stone truck washes
43	Temporary road construction for bridge access	5	day	1,801.04	9,000.00	HCCD Crews B10L
44	Placement and compaction of gravel road bed	300	SY	8.57	2,600.00	HCCD 2720-200-0301; crushed 1.5" stone base compacted 4" deep
45	Installation and removal of 40' temporary bridge	1.00	LS	1,200.00	1,200.00	Contractor Quote
46	Rent 40' bridge	4.00	week	1,784.54	7,100.00	Contractor Quote
					102,830	
SUBTOTAL FOR CONSTRUCTION					437,069	
43	Additional line items allowance	10	%	437,069.00	43,700.00	
SUBTOTAL FOR CONSTRUCTION WITHOUT CONTINGENCY					480,769	
44	Contingency	15	%	480,769.00	72,100.00	
SUBTOTAL FOR CONSTRUCTION WITH CONTINGENCY					552,869	
DESIGN COST ESTIMATE						
ENGINEERING & DESIGN						
45	Certificate of Designation Application Fees	1	LS	5,000.00	5,000.00	Judgment
46	Engineering design & operation report	1	LS	80,000.00	80,000.00	Judgment
47	Construction oversight	1	LS	38,400.00	38,400.00	Judgment, 2 people @ \$80/day, 10 hour/day, 6 day/week, 1 month
48	Administration	1	LS	8,000.00	8,000.00	Judgment
					131,400	
OPERATIONAL REQUIREMENTS						
49	Monitoring program plan	1	LS	6,000.00	6,000.00	Judgment
50	Site Inspection and monitoring and record keeping	30	YR	15,700.00	194,800.00	2 person @\$80/day, 12 hour/day, 4 days a year for 30 years (inspection of cap, sampling of water and sediment, minor repairs). ODC's \$200 per visit, 1 hour PE review, and annual reporting of results
					200,800	
FACILITY CLOSURE - ENGINEERING/DESIGN						
51	State & Local notifications	1	LS	3,000.00	3,000.00	Judgment
52	General public notification	1	LS	3,000.00	3,000.00	Judgment
53	Closure plan preparation	1	LS	8,000.00	8,000.00	Judgment
54	Post-closure plan preparation	1	LS	4,000.00	4,000.00	Judgment
					18,000	
SUBTOTAL FOR DESIGN AND OPERATION					350,200.00	
55	Additional line items allowance	10	%	350,200.00	35,000.00	
SUBTOTAL FOR DESIGN WITHOUT CONTINGENCY					385,200.00	
56	Contingency	15	%	385,200.00	57,800.00	
SUBTOTAL FOR DESIGN WITH CONTINGENCY					443,000	
TOTAL FOR DESIGN + CONSTRUCTION (ROUNDED)					995,900	

ASSUMPTIONS & LIMITATIONS:

- 1 Pricing is for 2008 present value with 7 percent discount rate.
2 Annual costs are set at 30 years for long-term monitoring activities at the Site.
3 Mark-up factor of 1.68 applied to all RSMeans costs

*UNITS:

AC = acre
CY = cubic yard
EA = each
LF = linear foot
LS = lump sum
SY = square yard
YR = year

HCCD = RSMeans Heavy Construction Cost Data 2006, adjusted for inflation
BCCD = RSMeans Building Construction Cost Data 2005, adjusted for inflation
ERCD = RSMeans Environmental Remediation Cost Data 2005, adjusted for inflation
Judgement = Professional judgement or estimation by E & E.

Helen Mine EE/CA OPINION OF PROBABLE COST						
Alternative 4:Onsite Consolidation and Placement in Lined Repository						
Item No.	Line Item	Est. Qty.	Unit*	Unit Price	Extended Price	Description
CONSTRUCTION COST ESTIMATE						
MOBILIZATION & GENERAL SITE PREPARATION						
1	Mobilization, Bonding, Insurance	5	%	-	21,900.00	Typical percentage of overall construction
2	Construction BMPs (E&S Controls)	2	%	-	8,700.00	Typical percentage of overall construction
3	Minor to Moderate Road Improvements	4.00	DAY	3,025.75	12,100.00	HCCD Crews B10L
3	Clear & Grub staging areas	2.00	AC	1,353.85	2,700.00	HCCD 02230-100-0300, aareas surrounding terrace locations
4	Surveying	13	DAY	1,180.56	15,300.00	HCCD Crews A-6, 4 field days pre/post construction, 4 days intermediate, 2 days office
5	Cleanup & Demobilization	1	LS	8,000.00	8,000.00	Judgment
					68,700	
Construction of Lined Repository						
6	Excavate repository subgrade	2,128	CY	3.76	8,000.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
7	Excavate repository trench	80	CY	3.40	300.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
8	Grade Subgrade	1,600	SY	2.97	4,700.00	HCCD 02310-100-1050, Subgrade for small irregular areas
9	Compact subgrade	533	CY	0.45	200.00	HCCD 02315-310-5080; 12" lifts, 3 passes
10	Clay (import)	1,734	CY	13.91	24,100.00	ERCD 17 03 0424; unclassified fill, delivered, off site, includes remoteness factor
11	Clay placement	1,734	CY	2.50	4,300.00	HCCD 02315-520-0020; fill, spread dumped material
12	Compact clay	1,734	CY	0.45	800.00	HCCD 02315-310-5080; 12" lifts, 3 passes
13	Geocomposite drainage layer	1,760	SY	2.95	5,200.00	HCCD 02620-300-100; fabric laid in trench, polypropylene, ideal conditions
					47,600.00	
Excavation and Movement of Material						
14	Excavation of sediment/waste material from southern disturbed area, south valley	488	CY	3.76	1,800.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
15	Haul south valley sediment to repository	488	CY	3.40	1,700.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
16	Placement of south valley sediment in repository	488	CY	3.76	1,800.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
17	Excavation of sediment/waste material from southern disturbed area, north valley	658	CY	3.76	2,500.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
18	Haul north valley sediment to repository	658	CY	3.40	2,200.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
19	Placement of north valley sediment in repository	658	CY	3.76	2,500.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
20	Excavation of tailings from north tailings pile	5,339	CY	3.76	20,100.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
21	Haul north tailings to repository	5,339	CY	3.40	18,200.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
22	Placement of north tailings in repository	5,339	CY	3.76	20,100.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
23	Excavation of storage tank area	223	CY	3.76	800.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
24	Haul storage tank area to repository	223	CY	3.40	800.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
25	Placement of storage tank area material in repository	223	CY	3.76	800.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
26	Excavation of retort area	24	CY	3.76	100.00	HCCD 02315-424-0300; 3 CY track mounted backhoe
27	Haul retort area to repository	24	CY	3.40	100.00	HCCD 02315-490-2010, 1000' haul, 22 CY rear dump
28	Placement of retort area material in repository	24	CY	3.76	100.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
29	Compact placed material at consolidation cell	6,732	CY	0.45	3,100.00	HCCD 02315-310-5080, 12" lifts, 3 passes
30	Final grading of placed material in repository	2,600	SY	0.21	500.00	HCCD 02310-100-3300, finish grading slopes, gentle slopes
					77,200	
Capping of Lined Repository						
31	Select clay fill for clay liner	1,734	CY	23.37	40,500.00	ERCD 17 03 0424; unclassified fill, delivered, off site, includes remoteness factor
32	Placement of clay liner	1,734	CY	3.76	6,500.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
33	Compaction of clay liner	1,734	CY	0.47	800.00	BCCD 02315-310-5080; 12" lifts, 3 passes
34	Select fill	858	CY	23.37	20,100.00	ERCD 17 03 0424; unclassified fill, delivered, off site, includes remoteness factor
35	Placement of select fill	858	CY	3.76	3,200.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
36	Compaction of select fill	858	CY	0.47	400.00	BCCD 02315-310-5080; 12" lifts, 3 passes
37	Topsoil (vegetative cover)	434	CY	43.39	18,800.00	ERCD 18 05 0301 Furnish imported topsoil (includes material and hauling to site)
38	Placing topsoil (vegetative cover)	2,600	SY	3.76	9,800.00	HCCD 02315-520-0170, spread topsoil from stockpile, 2.5 CY FE loader, 300' haul
					100,100	
Restoration of Southern Disturbed Area Valleys						
39	Grading of excavated south valley	488	CY	6.13	3,000.00	BCCD 02310-100-1150 Hand grading; modified from per SY
40	Grading of excavated north valley	658	CY	6.13	4,000.00	BCCD 02310-100-1150 Hand grading; modified from per SY
41	Granular bedding (materials)	382	CY	53.83	20,600.00	BCCD 02315-640-0050; bedding and placement
42	Haul bedding material to site	382	CY	36.89	14,100.00	BCCD 02315-490-0560; 12 CY dump;20 mile RT
43	Compact bedding material in channels	382	CY	5.47	2,100.00	BCCD 02315-640-0500; compacting bedding in trench
44	Riprap	764	CY	55.53	42,400.00	ERCD 17 03 0418; includes materials, delivery, and dumping
45	Place riprap	764	CY	34.82	26,600.00	BCCD 02370-450-0100; machine placed
					112,800	
Perimeter Fencing						
46	Perimeter Fencing at consolidation cell	72	LF	30.37	2,200.00	HCCD 2820-130-200, 3 strand barb wire, 2" post, 6' height, 9 ga. Wire, galv. Steel
					2,200	
Site Reclamation of Tailings Pile and Storage Tank Area						
47	Final grading of north tailings pile excavation	485	SY	0.25	100.00	HCCD 2310-100-3310; finishing grading slopes, steep slopes
48	Final grading of Storage Tank Area	669	SY	0.21	100.00	HCCD 02310-100-3300; finishing grading slopes, gentle slopes
	Revegetation	1	AC	1,803.53	2,039.40	Judgement, includes excavated areas and surface of consolidation cell
					2,239	
Surface Water Controls						
49	Permanent surface water control grading	2	DAY	1,339.86	2,700.00	Means crew B-10T
					2,700	
Miscellaneous						
50	Providing Dust Control	2,792	CY	1.76	4,910.00	HCCD 02315-310-9010, 3000 gal. Water truck, 6 mile haul
51	Erosion control	5,546	SY	10.38	57,570.00	ERCD 17 03 9904 mulch hay, 50 lb; modified per SY (1 bale/SY)
52	Stormwater Pollution Prevention Control	1	LS	20,000.00	20,000.00	Judgement and experience with similar projects
53	Providing Decon Area	30	SY	54.55	1,600.00	HCCD 02370-450-0400, stone truck washes
54	Temporary road construction for bridge access	5	day	1,801.04	9,000.00	HCCD Crews B10L
55	Placement and compaction of gravel road bed	300	SY	8.57	2,600.00	HCCD 2720-200-0301; crushed 1.5" stone base compacted 4" deep
56	Installation and removal of 40' temporary bridge	1.00	LS	1,200.00	1,200.00	Contractor Quote
57	Rent 40' bridge	4.00	week	1,784.54	7,100.00	Contractor Quote
					103,980	
SUBTOTAL FOR CONSTRUCTION					517,519	
58	Additional line items allowance	10	%	517,519.00	51,800.00	
SUBTOTAL FOR CONSTRUCTION WITHOUT CONTINGENCY					569,319	
59	Contingency	15	%	569,319.00	85,400.00	
SUBTOTAL FOR CONSTRUCTION WITH CONTINGENCY					654,719	
DESIGN COST ESTIMATE						
ENGINEERING & DESIGN						
60	Certificate of Designation Application Fees	1	LS	5,000.00	5,000.00	Judgment
61	Engineering design & operation report	1	LS	80,000.00	80,000.00	Judgment
62	Construction oversight	1	LS	38,400.00	38,400.00	Judgment, 2 people @ \$80/day, 10 hour/day, 6 day/week, 1 month
63	Administration	1	LS	8,000.00	8,000.00	Judgment
					131,400	
OPERATIONAL REQUIREMENTS						
64	Monitoring program plan	1	LS	6,000.00	6,000.00	Judgment
65	Site Inspection and monitoring and record keeping	30	YR	15,700.00	194,800.00	2 person @\$80/day, 12 hour/day, 4 days a year for 30 years (inspection of cap, sampling of water and sediment, minor repairs). ODC's \$200 per visit, 1 hour PE review, and annual reporting of results
66	Leachate Collection and Disposal	30	YR	7,120.00	88,400.00	2 people @\$80/day, 8 hour/day, 4 days a year for 30 years. Pump and dispose of leachate.
					200,800	
FACILITY CLOSURE - ENGINEERING/DESIGN						
67	State & Local notifications	1	LS	3,000.00	3,000.00	Judgment
68	General public notification	1	LS	3,000.00	3,000.00	Judgment
69	Closure plan preparation	1	LS	8,000.00	8,000.00	Judgment
70	Post-closure plan preparation	1	LS	4,000.00	4,000.00	Judgment
					18,000	
SUBTOTAL FOR DESIGN AND OPERATION					350,200.00	
71	Additional line items allowance	10	%	350,200.00	35,000.00	
SUBTOTAL FOR DESIGN WITHOUT CONTINGENCY					385,200.00	
72	Contingency	15	%	385,200.00	57,800.00	
SUBTOTAL FOR DESIGN WITH CONTINGENCY					443,000	
TOTAL FOR DESIGN + CONSTRUCTION (ROUNDED)					1,097,700	

ASSUMPTIONS & LIMITATIONS:
1 Pricing is for 2008 present value with 7 percent discount rate.
2 Annual costs are set at 30 years for long-term monitoring activities at the Site.
3 Mark-up factor of 1.68 applied to all RSMeans costs

*UNITS:
AC = acre
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EA = each
LF = linear foot
LS = lump sum
SY = square yard
YR = year

HCCD = RSMeans Heavy Construction Cost Data 2006, adjusted for inflation
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ERCD = RSMeans Environmental Remediation Cost Data 2005, adjusted for inflation
Judgement = Professional judgement or estimation by E & E.

Helen Mercury Mines EE/CA OPINION OF PROBABLE COST						
Alternative 5: Offsite Removal						
Item No.	Line Item	Est. Qty.	Unit*	Unit Price	Extended Price	Description
CONSTRUCTION COST ESTIMATE						
MOBILIZATION & GENERAL SITE PREPARATION						
1	Mobilization, Bonding, Insurance	5	%	-	234,600.00	Typical percentage of overall construction
2	Construction BMPs (E&S Controls)	2	%	-	93,800.00	Typical percentage of overall construction
3	Major Road Improvements	20.00	DAY	3,025.75	60,500.00	HCCD Crews B10L
4	Clear & Grub staging areas	2.00	AC	1,353.85	2,700.00	HCCD 02230-100-0300, areas surrounding containment locations
5	Surveying	15	DAY	1,000.00	15,000.00	Judgement from PLS
6	Cleanup & Demobilization	1	LS	8,000.00	8,000.00	Judgement
					414,600	
Excavation of Material						
7	Excavation of waste material	22,855	CY	5.15	117,700.00	Judgement+loading, BCCD 02315-462-9024
					117,700	
Off-Site Disposal Fees						
8	Disposal Characterization Sampling	229	EA	250.00	57,137.50	Estimate from TestAmerica for rush TCLP Metals sample
9	Waste transport to landfill (out-of-state)	21,941	Ton	150.00	3,291,120.00	Estimate from landfill
10	Non-hazardous Waste disposal (out-of-state)	21,941	Ton	11.00	241,348.80	Estimate from landfill
11	Waste transport to landfill (in-state)	4,571	Ton	85.00	388,535.00	Estimate from CA landfill
12	Hazardous Waste disposal (in-state)	4,571	Ton	25.00	114,275.00	Estimate from CA landfill
13	Waste Manifesting Fees	1,767	Loads	1.00	1,767.45	Judgement and experience with similar projects
					4,094,182	
Site Reclamation						
14	Re-grading and countouring of excavation areas	22,855	CY	3.76	86,000.00	HCCD 02315-520-0170, spread fill from stockpile, 2.5 CY FE loader, 300' haul
15	Compaction of fill	22,855	CY	4.54	103,900.00	BCCD 31 23 23.13-1600 (2008 adjusted); 6-12" lifts, Sheepsfoot
16	Final grading of excavated areas	1,000	SY	0.98	1,000.00	BCCD 31 22 16-0100 (2008 adjusted)
17	Revegetation	0	AC	1,100.00	200.00	Per value suggested by similar BLM project
18	Temporary fencing	2,000	LF	7.81	15,600.00	HCCD 01560-250-0200
					206,700	
Miscellaneous						
19	Providing Dust Control	5,714	CY	1.76	10,050.00	HCCD 02315-310-9010, 3000 gal. Water truck, 6 mile haul
20	Confirmation Soil Sampling	75	EA	100.00	7,500.00	Judgement and experience with similar projects
21	Erosion control	7,260	SY	10.38	75,360.00	ERCD 17 03 9904 mulch hay, 50 lb; modified per SY (1 bale/SY)
22	Stormwater Pollution Prevention Control	1	LS	27,000.00	27,000.00	Judgement and experience with similar projects
23	Temporary road construction for bridge access	5	DAY	3,025.75	15,130.00	HCCD Crews B10L
24	Placement and compaction of gravel road bed	300	SY	9.64	2,890.00	HCCD 02720-200-0301; crushed 1.5" stone base compacted 4" deep
25	Delivery/removal of 40' temporary bridge	1	LS	1,200.00	1,200.00	Estimate from bridge contractor
26	Installation and removal of bridge	1	DAY	2,861.24	2,900.00	HCCD Crews B10Q ; 5 C.Y. F.E. W.M. loader
27	Temporary bridge across Dry Creek	24	WEEK	1,784.54	42,800.00	Estimate from bridge contractor
28	Providing Decon Area	30	SY	54.55	1,600.00	HCCD 02370-450-0400, stone truck washes
					186,430	
SUBTOTAL FOR CONSTRUCTION					5,019,612	
29	Additional line items allowance	10	%	5,019,611.75	502,000.00	
SUBTOTAL FOR CONSTRUCTION WITHOUT CONTINGENCY					5,521,612	
30	Contingency	15	%	5,521,611.75	828,200.00	
SUBTOTAL FOR CONSTRUCTION WITH CONTINGENCY					6,349,812	
DESIGN COST ESTIMATE						
ENGINEERING & DESIGN						
31	Certificate of Designation Application Fees	1	LS	5,000.00	5,000.00	Judgment
32	Engineering design & operation report	1	LS	60,000.00	60,000.00	Judgment
33	Construction oversight	8	%	40,160.00	321,280.00	Judgment
34	Administration	1	LS	20,000.00	20,000.00	Judgment
					406,280	
OPERATIONAL REQUIREMENTS						
35	Monitoring program plan	1	LS	10,000.00	10,000.00	Judgment
36	Monitoring	1	YR	2,000.00	2,000.00	Judgment
37	Recordkeeping	1	YR	5,000.00	5,000.00	Judgment
					17,000	
FACILITY CLOSURE - ENGINEERING/DESIGN						
38	State & Local notifications	1	LS	3,000.00	3,000.00	Judgment
39	General public notification	1	LS	3,000.00	3,000.00	Judgment
40	Trespass prevention measures	1	LS	3,500.00	3,500.00	Judgment
41	Permanent surface water control plan	1	LS	10,000.00	10,000.00	Judgment
42	Closure plan preparation, incl. final cover system	1	LS	30,000.00	30,000.00	Judgment
43	Post-closure plan preparation	1	LS	10,000.00	10,000.00	Judgment
					59,500	
SUBTOTAL FOR DESIGN AND OPERATION					482,780.00	
44	Additional line items allowance	10	%	482,780.00	48,300.00	
SUBTOTAL FOR DESIGN WITHOUT CONTINGENCY					531,080.00	
45	Contingency	15	%	531,080.00	79,700.00	
SUBTOTAL FOR DESIGN WITH CONTINGENCY					610,780	
TOTAL FOR DESIGN + CONSTRUCTION (ROUNDED)					6,960,600	

ASSUMPTIONS & LIMITATIONS:

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